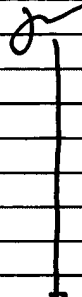



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Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/663,407
		Filing Date	September 15, 2003
		First Named Inventor	Zavitz et al.
		Art Unit	<del>1040</del> 1648
		Examiner Name	Unknown PARKER, JEFFREY
Sheet 1 of 5	Attorney Docket Number	1907.04-1	

U.S. PATENT DOCUMENTS					
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		5,807,995	09/15/1998	Cohen et al.	
		5,891,668	04/06/1999	Li et al.	
		5,892,016	04/06/1999	Brie et al.	
		6,248,523	06/19/2001	Cohen et al.	
		6,274,312	08/14/2001	Gish et al.	
		09/971,549	10/04/2001	Zavitz et al.	
		2002/0173622	11/21/2002	Wettstein et al.	
		2002/0177207	11/28/2002	Sugiyama et al.	
		2003/0049607	03/13/2003	Greener et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)			
		WO	02/094314	11/28/2002	Cohen et al.	

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>			Application Number	10/663,407
			Filing Date	September 15, 2003
			First Named Inventor	Zavitz et al.
			Art Unit	1040-1648
			Examiner Name	Unknown PARIKH, OFFICE
(use as many sheets as necessary)			Attorney Docket Number	1907.04-1
Sheet	2	of	5	

NON PATENT LITERATURE DOCUMENTS			
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jm		ACCOLA et al., "Efficient Particle Production by Minimal Gag Constructs Which Retain the Carboxy-Terminal Domain of Human Immunodeficiency Virus Type 1 Capsid-p2 and a Late Assembly Domain", <i>Journal of Virology</i> , June 2000, 74(12):5395-5402.	
		ALEXANDER et al., "Unusual Polymorphisms in Human Immunodeficiency Virus Type 1 Associated with Nonprogressive Infection", <i>Journal of Virology</i> , May 2000, 74(9):4361-4376.	
		BABST et al., "Mammalian Tumor Susceptibility Gene 101 (TSG101) and the Yeast Homologue, Vps23p, Both Function in Late Endosomal Trafficking", <i>Traffic</i> , 2000, 1:248-258.	
		BISHOP et al., "TSG101/Mammalian VPS23 and Mammalian VPS28 Interact Directly and Are Recruited to VPS4-induced Endosomes", <i>The Journal of Biological Chemistry</i> , April 13, 2001, 276(15):11735-11742.	
		BUTKIEWICZ et al., "Virus-Specific Cofactor Requirement and Chimeric Hepatitis C Virus/GB Virus B Nonstructural Protein 3" <i>Journal of Virology</i> , May 2000, 74(9):4291-4301.	
		CARTER, "Tsg101: HIV-1's ticket to ride", <i>Trends in Microbiology</i> , May 2002, 10(5):203-205.	
		CRAVEN et al., "Late Domain Function Identified in the Vesicular Stomatitis Virus M Protein by Use of Rhabdovirus-Retrovirus Chimeras", <i>Journal of Virology</i> , April 1999, 73(4):3359-3365.	
		CRUMP et al., "Inhibition of the Interaction between Tyrosine-based Motifs and the Medium Chain Subunit of the AP-2 Adaptor Complex by Specific Tyrosinophostins", <i>The Journal of Biological Chemistry</i> , October 23, 1998, 273(43):28073-28077.	
		DEMIROV et al., "Overexpression of the N-Terminal domain of TSG101 inhibits HIV-1 budding by blocking late domain function", <i>PNAS</i> , January 22, 2002, 99(2):955-960.	
		DESAI et al., "Molecular cloning and primary nucleotide sequence analysis of a distinct human immunodeficiency virus isolate reveal significant divergence in its genomic sequences", <i>PNAS</i> , November 1986, 83(21):8380-8384.	
		DESCHAMBEAULT et al., "Polarized Human Immunodeficiency Virus Budding in Lymphocytes Involves a Tyrosine-Based Signal and Favors Cell-to-Cell Viral Transmission", <i>Journal of Virology</i> , June 1999, 73(6):5010-5017.	
		FARRAR et al., "Characterisation of a Series of Human Immunodeficiency Virus Isolates Derived Sequentially From a Single Patient", <i>Journal of Medical Virology</i> , 1991, 34:104-113.	
		GARNIER et al., "Identification of Retroviral Late Domains as Determinants of Particle Size", <i>Journal of Virology</i> , March 1999, 73(3):2309-2320.	
		GARRUS et al., "Tsg101 and the Vacuolar Protein Sorting Pathway Are Essential for HIV-1 Budding", <i>Cell</i> , October 5, 2001, 107:55-65.	

Examiner Signature		Date Considered	02/12/07
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		Application Number	10/663,407		
		Filing Date	September 15, 2003		
		First Named Inventor	Zavitz et al.		
		Art Unit	4648-1648		
		Examiner Name	Unknown- PARKIN, JEFFREY		
Sheet	3	of	5	Attorney Docket Number	1907.04-1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
J		HARTY et al., "A PPxY motif within the VP40 protein of Ebola virus interacts physically and functionally with a ubiquitin ligase: Implications for filovirus budding", <i>PNAS</i> , December 5, 2000, 97(25):13871-13876.	
		HARTY et al., "A Proline-Rich Motif within the Matrix Protein of Vesicular Stomatitis Virus and Rabies Virus Interacts with WW Domains of Cellular Proteins: Implications for Viral Budding", <i>Journal of Virology</i> , April 1999, 73(4):2921-2929.	
		HARVEY et al., "Nedd4-like proteins: an emerging family of ubiquitin-protein ligases implicated in diverse cellular functions", <i>Trends in Cell Biology</i> , May 1999, 9:166-169.	
		HEINRICHS et al., "In vivo analysis of the functional domains of the Drosophila splicing regulator RBP1", 1997, <i>PNAS</i> , 94:115-120.	
		HUANG et al., "p6 <sup>Gag</sup> Is Required for Particle Production from Full-Length Human Immunodeficiency Virus Type 1 Molecular Clones Expressing Protease", <i>Journal of Virology</i> , November 1995, 69(11):6810-6818.	
		JAYAKAR et al., "Mutations in the PPPY Motif of Vesicular Stomatitis Virus Matrix Protein Reduce Virus Budding by Inhibiting a Late Step in Virion Release", <i>Journal of Virology</i> , November 2000, 74(21):9818-9827.	
		LEVIN et al., "Inhibition of Early and Late Events of the HIV-1 Replication Cycle by Cytoplasmic Fab Intrabodies against the Matrix Protein, p17", <i>Molecular Medicine</i> , February 1997, 3(2):96-110.	
		LUBAN, "HIV-1 and Ebola virus: The getaway driver nabbed", <i>Nature Medicine</i> , December 2001, 7(12):1278-1280.	
		MARTIN-SERRANO et al., "HIV-1 and Ebola virus encode small peptide motifs that recruit Tsg101 to sites of particle assembly to facilitate egress", <i>Nature Medicine</i> , December 2001, 7(12):1313-1319.	
		MHASHILKAR et al., "Inhibition of HIV-1 Tat-mediated LTR transactivation and HIV-1 infection by anti-Tat single chain intrabodies", <i>The EMBO Journal</i> , 1995, 14(7):1542-1551.	
		MYERS et al., "Tsg101, an Inactive Homologue of Ubiquitin Ligase E2, Interacts Specifically with Human Immunodeficiency Virus Type 2 Gag Polyprotein and Results in Increased Levels of Ubiquitinated Gag", <i>Journal of Virology</i> , November 2002, 76(22):11226-11235.	
		NCBI Entrez Protein Database Accession No.: AAB38034, December 5, 1996.	
		NCBI Entrez Protein Database Accession No.: AAB83138, November 6, 1997.	
		NCBI Entrez Protein Database Accession No.: AAB83216, November 6, 1997.	

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			Application Number	10/663,407	
			Filing Date	September 15, 2003	
			First Named Inventor	Zavitz et al.	
			Art Unit	1648	
Examiner Name	Unknown PARENT, JEFFREY				
Sheet	4	of	5	Attorney Docket Number	1907.04-1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
2		NCBI Entrez Protein Database Accession No.: AAB83821, November 6, 1997.	
		NCBI Entrez Protein Database Accession No.: AAD03232, January 6, 1999.	
		NCBI Entrez Protein Database Accession No.: AAD03240, January 6, 1999.	
		NCBI Entrez Protein Database Accession No.: AAD17020, June 1, 2001.	
		NCBI Entrez Protein Database Accession No.: AAF35354, February 23, 2000.	
		NCBI Entrez Protein Database Accession No.: CAB92786, September 20, 2000.	
		NCBI Entrez Protein Database Accession No.: P35962, July 15, 1998.	
		OTT et al., "Ubiquitin Is Covalently Attached to the p6 <sup>Gag</sup> Proteins of Human Immunodeficiency Virus Type 1 and Simian Immunodeficiency Virus and to the p12 <sup>Gag</sup> Protein of Moloney Murine Leukemia Virus", <i>Journal of Virology</i> , April 1998, 72(4):2962-2968.	
		PARENT et al., "Positionally Independent and Exchangeable Late Budding Functions of the Rous Sarcoma Virus and Human Immunodeficiency Virus Gag Proteins", <i>Journal of Virology</i> , September 1995, 69(9):5455-5460.	
		PATNAIK et al., "Ubiquitin is part of the retrovirus budding machinery", <i>PNAS</i> , November 21, 2000, 97(24):13069-13074.	
		PORNILLOS et al., Structure and functional interactions of the Tsg101 UEV domain", <i>The EMBO Journal</i> , 2002, 21(10):2397-2406.	
		PORNILLOS et al., "Structure of the Tsg101 UEV domain in complex with the PTAP motif of the HIV-1 p6 protein", <i>Nature Structural Biology</i> , November 2002, 9(11):812-817.	
		PUFFER et al., "Equine Infectious Anemia Virus Gag Polyprotein Late Domain Specifically Recruits Cellular AP-2 Adapter Protein Complexes during Virion Assembly", <i>Journal of Virology</i> , December 1998, 72(12):10218-10221.	
		PUFFER et al., "Equine Infectious Anemia Virus Utilizes a YXXL Motif within the Late Assembly Domain of the Gag p9 Protein", <i>Journal of Virology</i> , September 1997, 71(9):6541-6546.	
		ROSSI, "Therapeutic applications of catalytic antisense RNAs (ribozymes)", <i>CIBA Foundation Symposium</i> , 1997, 209:195-206.	
6		SAVARINO et al., "The Biochemistry of Gene Therapy for AIDS", <i>Clin. Chem. Lab. Med.</i> , 1998, 36(4):205-210.	

Examiner Signature	Date Considered	02/17/07
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				Filing Date	September 15, 2003
				First Named Inventor	Zavitz et al.
				Art Unit	1648 1648
				Examiner Name	Unknown PARSONS, TRACY
Sheet	5	of	5	Attorney Docket Number	1907.04-1

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		SCHUBERT et al., "Proteasome inhibition interferes with Gag polyprotein processing, release, and maturation of HIV-1 and HIV-2", <i>PNAS</i> , November 21, 2000, 97(24):13057-13062.	
		SORKINA et al., "Clathrin, adaptors and eps15 in endosomes containing activated epidermal growth factor receptors", <i>Journal of Cell Science</i> , 1999, 112:317-327.	
		STRACK et al., "A role for ubiquitin ligase recruitment in retrovirus release", <i>PNAS</i> , November 21, 2000, 97(24):13063-13068.	
		VERKHIVKER, "Towards understanding the mechanisms of molecular recognition by computer simulations of ligand-protein interactions", <i>Journal of Molecular Recognition</i> , 1999, 12:371-389.	
		VERPLANK et al., "Tsg101, a homologue of ubiquitin-conjugating (E2) enzymes, binds the L domain in HIV type 1 Pr55Gag", <i>PNAS</i> , July 3, 2001, 98(14):7724-7729.	
		VOGT., "Ubiquitin in retrovirus assembly: Actor or bystander?", <i>PNAS</i> , November 21, 2000, 97(24):12945-12947.	
		WHITTLE et al., "Protein Structure-Based Drug Design", <i>Annu. Rev. Biophys. Biomol. Struct.</i> , 1994, 23:349-375.	
		YASUDA et al., "A Proline-Rich Motif (PPPY) in the Gag Polyprotein of Mason-Pfizer Monkey Virus Plays a Maturation-Independent Role in Virion Release", <i>Journal of Virology</i> , May 1998, 72(5):4095-4103.	
		YUAN et al., "Infectivity of Moloney Murine Leukemia Virus Defective in Late Assembly Events Is Restored by Late Assembly Domains of Other Retroviruses", <i>Journal of Virology</i> , August 2000, 74(16):7250-7260.	
		YUAN et al., "Mutations altering the Moloney murine leukemia virus p12 Gag protein affect virion production and early events of the virus life cycle", <i>The EMBO Journal</i> , 1999, 18(17):4700-4710.	
		ZHANG et al., "Drug Resistance during Indinavir Therapy Is Caused by Mutations in the Protease Gene and in Its Gag Substrate Cleavage Sites", <i>Journal of Virology</i> , September 1997, 71(9):6662-6670.	

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